

IN THE CLAIMS

I. Cancellation of Claims

Please cancel claims 24, 25, 36, 37, 41, 44-51, 54-64, 71-80, 87-90, 124-126, 142, 143, 164-166, 182, 183, 223-225, 238-266, and 292-621, without prejudice.

II. Addition of Claims

Please add new claims 622-861 as follows:

622. (New) A solid pharmaceutical composition in a dosage form that is not enteric-coated, consisting essentially of:

(a) a non-enteric coated proton pump inhibitor selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole, pantoprazole, pariprazole, and leminoprazole; and

(b) a mixture of sodium bicarbonate and a calcium salt, wherein the mixture is in an amount sufficient to prevent or inhibit acid degradation of the proton pump inhibitor by gastric acid in a subject so as to achieve bioavailability of the proton pump inhibitor in the subject after enteral administration of the dosage form.

623. (New) The composition as recited in Claim 622, wherein the proton pump inhibitor comprises a substantially pure enantiomer, racemic mixture, derivative, free base, or salt thereof.

624. (New) The composition as recited in Claim 622, wherein the calcium salt is selected from the group consisting of calcium acetate, calcium glycerophosphate, calcium chloride, calcium hydroxide, calcium lactate, calcium bicarbonate, calcium gluconate, calcium glycinate, calcium maleate, and other calcium salts.

625. (New) The composition as recited in Claim 622, wherein the sodium bicarbonate is in an amount from about 1000 mg to about 1680 mg.

626. (New) The composition as recited in Claim 622, wherein the sodium bicarbonate is in an amount of at least about 1680 mg.

627. (New) The composition as recited in Claim 622, wherein the calcium salt is calcium carbonate present in an amount from about 250 mg to about 1000 mg.

628. (New) The composition as recited in Claim 622, wherein the calcium salt is calcium carbonate present in an amount from about 500 mg to about 1000 mg.

629. (New) The composition as recited in Claim 622, wherein the calcium salt is calcium carbonate present in an amount of at least about 1000 mg.

630. (New) The composition as recited in Claim 622, wherein the mixture is in an amount of at least 10 mEq.

631. (New) The composition as recited in Claim 622, wherein the mixture is in an amount from about 10 mEq to about 70 mEq.

632. (New) The composition as recited in Claim 622, wherein the mixture is in an amount from about 20 mEq to about 40 mEq.

633. (New) The composition as recited in Claim 622, wherein the proton pump inhibitor is in an amount from about 10 mg to about 100 mg.

634. (New) The composition as recited in Claim 622, wherein the proton pump inhibitor is omeprazole.

635. (New) The composition as recited in Claim 634, wherein the omeprazole is present in an amount of about 10 mg.

Sh D11
636. (New) The composition as recited in Claim 634, wherein the omeprazole is present in an amount of about 20 mg.

637. (New) The composition as recited in Claim 634, wherein the omeprazole is present in an amount of about 40 mg.

638. (New) The composition as recited in Claim 634, wherein the omeprazole is present in an amount of about 60 mg.

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639. (New) The composition as recited in Claim 634, wherein the omeprazole is present in an amount of about 80 mg.

640. (New) The composition as recited in Claim 634, wherein the omeprazole is present in an amount of about 100 mg.

641. (New) The composition as recited in Claim 622, wherein the proton pump inhibitor is lansoprazole.

642. (New) The composition as recited in Claim 641, wherein the lansoprazole is present in an amount of about 15 mg.

643. (New) The composition as recited in Claim 641, wherein the lansoprazole is present in an amount of about 30 mg.

644. (New) The composition as recited in Claim 641, wherein the lansoprazole is present in an amount of about 45 mg.

See D11
645. (New) The composition as recited in Claim 641, wherein the lansoprazole is present in an amount of about 60 mg.

646. (New) The composition as recited in Claim 641, wherein the lansoprazole is present in an amount of about 90 mg.

647. (New) The composition as recited in Claim 641, wherein the lansoprazole is present in an amount of about 100 mg.

648. (New) The composition as recited in Claim 622, wherein the proton pump inhibitor is micronized.

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649. (New) The composition as recited in Claim 622, wherein the composition is in a dosage form selected from the group consisting of a tablet, powder, suspension tablet, chewable tablet, capsule, effervescent powder, effervescent tablet, pellets, and granules.

650. (New) The composition as recited in Claim 622, wherein the subject is a human.

651. (New) The composition as recited in Claim 650, wherein the human comprises a healthy adult, a healthy child, a human adult having an acid-related gastrointestinal disorder, and a child having an acid-related gastrointestinal disorder.

652. (New) The composition as recited in Claim 622, further comprising a flavoring agent.

See D12
653. (New) The composition as recited in Claim 652, wherein the flavoring agent comprises aspartame, chocolate, root beer, peppermint, spearmint, berry, peach, or watermelon.

654. (New) The composition as recited in Claim 622, wherein the composition is provided as a separate component of a kit.

655. (New) A method for treating an acid-related gastrointestinal disorder in a subject in need thereof, comprising: ~~enterally~~ administering to the subject the solid pharmaceutical composition as recited in Claim 622.

Sal 513
656. (New) The method as recited in Claim 655, wherein the disorder is selected from the group consisting of duodenal ulcer disease, gastric ulcer disease, gastroesophageal reflux disease (GERD), erosive esophagitis, poorly responsive symptomatic gastroesophageal reflux disease, pathological hypersecretory disease, Zollinger Ellison Syndrome, and dyspepsia.

657. (New) The method as recited in Claim 655, further comprising administering to the subject a buffering agent.

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658. (New) The method as recited in Claim 657, wherein the buffering agent is administered to the subject in a form selected from the group consisting of solution, suspension, tablet, powder, suspension tablet, chewable tablet, capsule, effervescent powder, effervescent tablet, pellets, and granules.

659. (New) The method as recited in Claim 657, wherein the buffering agent is administered to the subject in an amount from about 2 mEq to about 70 mEq.

660. (New) The method as recited in Claim 657, wherein the composition has less than about 20 times the amount of the mixture of sodium bicarbonate and calcium salt as compared to the proton pump inhibitor on a weight to weight basis.

Sal 514
661. (New) The method as recited in Claim 655, wherein the composition is administered once or twice a day.

662. (New) A liquid pharmaceutical composition, comprising: the dosage form as recited in Claim 622 suspended in an aqueous medium.

663. (New) The composition as recited in Claim 662, wherein the aqueous medium comprises a buffering agent.

664. (New) The composition as recited in Claim 662, wherein the buffering agent comprises a bicarbonate salt of a Group IA metal.

665. (New) The composition as recited in Claim 662, wherein the buffering agent is in an amount from about 2 mEq to about 70 mEq.

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666. (New) A solid pharmaceutical composition in a dosage form that is not enteric-coated, consisting essentially of:

(a) a non-enteric coated proton pump inhibitor (PPI) selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole, pantoprazole, pariprazole, and leminoprazole; and

(b) a buffering agent in an amount more than about 20 ^{including} times the amount of the proton pump inhibitor on a weight to weight basis in the composition.

SD5
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667. (New) The composition as recited in Claim 666, wherein the amount of the buffering agent is sufficient for the agent to prevent or inhibit *in vivo* gastric acid degradation of the proton pump inhibitor upon the enteral administration of the dosage form to a subject so as to achieve bioavailability of the proton pump inhibitor in the subject.

668. (New) The composition as recited in Claim 667, wherein the amount of the agent is sufficient to cause a pH of an *in vitro* acid solution to be about 4.0 or greater for at least about 45 minutes in a Kinetic Acid Neutralization Model.

669. (New) The composition as recited in Claim 667, wherein the amount of the agent is sufficient to cause a pH of an *in vitro* acid solution to be about 4.0 or greater for at least about 60 minutes in a Kinetic Acid Neutralization Model.

670. (New) The composition as recited in Claim 667, wherein the amount of the agent is sufficient to cause a pH of an *in vitro* acid solution to be about 4.0 or greater for at least about 120 minutes in a Kinetic Acid Neutralization Model.

671. (New) The composition as recited in Claim 667, wherein the amount of the agent is sufficient to cause a pH of an *in vitro* acid solution to be about 5.0 or greater for at least about 60 minutes in a Kinetic Acid Neutralization Model.

672. (New) The composition as recited in Claim 667, wherein the amount of the agent is sufficient to cause a pH of an *in vitro* acid solution to be about 5.0 or greater for at least about 120 minutes in a Kinetic Acid Neutralization Model.

673. (New) The composition as recited in Claim 667, wherein the amount of the agent is sufficient to cause a pH of an *in vitro* acid solution to be about 5.5 or greater for at least about 60 minutes in a Kinetic Acid Neutralization Model.

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674. (New) The composition as recited in Claim 667, wherein the amount of the agent is sufficient to cause a pH of an *in vitro* acid solution to be about 6.0 or greater for at least about 60 minutes in a Kinetic Acid Neutralization Model.

675. (New) The composition as recited in Claim 666, wherein the proton pump inhibitor comprises a substantially pure enantiomer, racemic mixture, derivative, free base, or salt thereof.

676. (New) The composition as recited in Claim 666, wherein the buffering agent comprises a bicarbonate salt of a Group IA metal.

677. (New) The composition as recited in Claim 666, wherein the buffering agent comprises at least one of magnesium hydroxide, magnesium lactate, magnesium gluconate, magnesium oxide, magnesium carbonate, magnesium silicate, magnesium lactate, and other magnesium salts.

678. (New) The composition as recited in Claim 666, wherein the buffering agent comprises at least one of calcium acetate, calcium glycerophosphate, calcium chloride, calcium hydroxide, calcium lactate, calcium carbonate, calcium bicarbonate, calcium gluconate, calcium glycinate, calcium maleate, and other calcium salts.

Sub E4
679. (New) The composition as recited in Claim 666, wherein the buffering agent comprises sodium bicarbonate.

680. (New) The composition as recited in Claim 679, wherein the sodium bicarbonate is in an amount from about 1000 mg to about 1680 mg.

681. (New) The composition as recited in Claim 679, wherein the sodium bicarbonate is in an amount of at least about 1680 mg.

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682. (New) The composition as recited in Claim 666, wherein the buffering agent comprises calcium carbonate.

Sub D16
683. (New) The composition as recited in Claim 682, wherein the calcium carbonate is in an amount from about 250 mg to about 1000 mg.

Sub D17
⁶³684. (New) The composition as recited in Claim ⁶¹682, wherein the calcium carbonate is in an amount from about 500 mg to about 1000 mg.

685. (New) The composition as recited in Claim 682, wherein the calcium carbonate is in an amount of at least about 1000 mg.

686. (New) The composition as recited in Claim 666, wherein the buffering agent comprises sodium bicarbonate and calcium carbonate.

⁶⁵ 687. (New) The composition as recited in Claim ⁵⁷ ~~666~~, wherein the proton pump inhibitor is in an amount from about 10 mg to about 100 mg.

⁶⁶ 688. (New) The composition as recited in Claim ⁵⁷ ~~666~~, wherein the proton pump inhibitor is omeprazole.

⁶⁷ 689. (New) The composition as recited in Claim ⁶⁶ ~~688~~, wherein the omeprazole is present in an amount of about 10 mg.

⁶⁸ 690. (New) The composition as recited in Claim ⁶⁶ ~~688~~, wherein the omeprazole is present in an amount of about 20 mg.

⁶⁹ 691. (New) The composition as recited in Claim ⁶⁶ ~~688~~, wherein the omeprazole is present in an amount of about 40 mg.

⁷⁰ 692. (New) The composition as recited in Claim ⁶⁶ ~~688~~, wherein the omeprazole is present in an amount of about 60 mg.

⁷¹ 693. (New) The composition as recited in Claim ⁶⁶ ~~688~~, wherein the omeprazole is present in an amount of about 80 mg.

⁷² 694. (New) The composition as recited in Claim ⁶⁶ ~~688~~, wherein the omeprazole is present in an amount of about 100 mg.

⁷³ 695. (New) The composition as recited in Claim ⁵⁷ ~~666~~, wherein the proton pump inhibitor is lansoprazole.

⁷⁴ 696. (New) The composition as recited in Claim ⁷³ ~~695~~, wherein the lansoprazole is present in an amount of about 15 mg.

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697. (New) The composition as recited in Claim 695, wherein the lansoprazole is present in an amount of about 30 mg.

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698. (New) The composition as recited in Claim 695, wherein the lansoprazole is present in an amount of about 45 mg.

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699. (New) The composition as recited in Claim 695, wherein the lansoprazole is present in an amount of about 60 mg.

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700. (New) The composition as recited in Claim 695, wherein the lansoprazole is present in an amount of about 90 mg.

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701. (New) The composition as recited in Claim 695, wherein the lansoprazole is present in an amount of about 100 mg.

⁵¹
702. (New) The composition as recited in Claim 666, wherein the proton pump inhibitor is micronized.

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703. (New) The composition as recited in Claim 666, wherein the composition is in a dosage form selected from the group consisting of a tablet, powder, suspension tablet, chewable tablet, capsule, effervescent powder, effervescent tablet, pellets, and granules.

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704. (New) The composition as recited in Claim 666, further comprising a flavoring agent, comprising aspartame, chocolate, root beer, peppermint, spearmint, berry, peach, or watermelon.

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705. (New) The composition as recited in Claim 666, wherein the amount of the buffering agent is more than about 25 times the amount of the proton pump inhibitor on a weight to weight basis in the composition.

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706. (New) The composition as recited in Claim 666, wherein the amount of the buffering agent is more than about 30 times the amount of the proton pump inhibitor on a weight to weight basis in the composition.

707. (New) The composition as recited in Claim 666, wherein the amount of the buffering agent is more than about 35 times the amount of the proton pump inhibitor on a weight to weight basis in the composition.

708. (New) The composition as recited in Claim 666, wherein the amount of the buffering agent is more than about 40 times the amount of the proton pump inhibitor on a weight to weight basis in the composition.

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709. (New) The composition as recited in Claim 666, wherein the amount of the buffering agent is more than about 50 times the amount of the proton pump inhibitor on a weight to weight basis in the composition.

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710. (New) The composition as recited in Claim 666, wherein the amount of the buffering agent is more than about 60 times the amount of the proton pump inhibitor on a weight to weight basis in the composition.

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711. (New) The composition as recited in Claim 666, wherein the amount of the buffering agent is more than about 70 times the amount of the proton pump inhibitor on a weight to weight basis in the composition.

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712. (New) The composition as recited in Claim 666, wherein the amount of the buffering agent is more than about 80 times the amount of the proton pump inhibitor on a weight to weight basis in the composition.

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713. (New) The composition as recited in Claim 666, wherein the amount of the buffering agent is more than about 90 times the amount of the proton pump inhibitor on a weight to weight basis in the composition.

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714. (New) The composition as recited in Claim ⁵⁷666, wherein the amount of the buffering agent is more than about 100 times the amount of the proton pump inhibitor on a weight to weight basis in the composition.

715. (New) The composition as recited in Claim 666, wherein the subject is a human selected from the group consisting of a healthy adult, a healthy child, a human adult having an acid-related gastrointestinal disorder, and a child having an acid-related gastrointestinal disorder.

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716. (New) The composition as recited in Claim ⁵⁷666, wherein the composition is provided as a separate component of a kit.

717. (New) A method of producing a liquid pharmaceutical composition comprising: combining one or more of the dosage forms of Claim 702 with an aqueous medium.

Sub D5
718. (New) A method for treating an acid-related gastrointestinal disorder in a subject in need thereof, comprising: enterally administering to the subject the solid pharmaceutical composition as recited in Claim 666.

Sub D9
719. (New) The method as recited in Claim 718, wherein the disorder is selected from the group consisting of duodenal ulcer disease, gastric ulcer disease, gastroesophageal reflux disease (GERD), erosive esophagitis, poorly responsive symptomatic gastroesophageal reflux disease, pathological hypersecretory disease, Zollinger Ellison Syndrome, and dyspepsia.

720. (New) The method as recited in Claim 718, further comprising administering to the subject an additional buffering agent.

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721. (New) The method as recited in Claim 720, wherein the additional buffering agent is administered to the subject in a form selected from the group consisting of solution, suspension, tablet, powder, suspension tablet, chewable tablet, capsule, effervescent powder, effervescent tablet, pellets, and granules.

722. (New) The method as recited in Claim 720, wherein the additional buffering agent is administered to the subject in an amount from about 2 mEq to about 70 mEq.

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723. (New) The method as recited in Claim 720, wherein the composition has less than about 20 times the amount of the additional buffering agent as compared to the proton pump inhibitor on a weight to weight basis.

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724. (New) The method as recited in Claim 718, wherein the composition is administered once or twice a day.

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725. (New) A method for administering a liquid pharmaceutical composition to a subject, comprising: combining the pharmaceutical composition as recited in Claim ~~666~~⁵⁷ with an aqueous medium to form a suspension, and orally administering the suspension to the subject in a single dose without administering an additional buffering agent.

726. (New) The composition as recited in Claim 725, wherein the aqueous medium comprises a buffering agent.

727. (New) The composition as recited in Claim 725, wherein the buffering agent comprises a bicarbonate salt of a Group IA metal.

728. (New) The composition as recited in Claim 725, wherein the buffering agent is in an amount from about 2 mEq to about 70 mEq.

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729. (New) The composition as recited in Claim ¹23, wherein the proton pump inhibitor is in an amount from about 10 mg to about 100 mg.

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730. (New) The composition as recited in Claim ⁹⁵729, wherein the proton pump inhibitor is omeprazole.

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731. (New) The composition as recited in Claim ⁹⁵729, wherein the omeprazole is present in an amount of about 10 mg.

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732. (New) The composition as recited in Claim ⁹⁵729, wherein the omeprazole is present in an amount of about 20 mg.

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733. (New) The composition as recited in Claim ⁹⁵729, wherein the omeprazole is present in an amount of about 40 mg.

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734. (New) The composition as recited in Claim ⁹⁵729, wherein the omeprazole is present in an amount of about 60 mg.

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735. (New) The composition as recited in Claim ⁹⁵729, wherein the omeprazole is present in an amount of about 80 mg.

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736. (New) The composition as recited in Claim ⁹⁵729, wherein the omeprazole is present in an amount of about 100 mg.

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737. (New) The composition as recited in Claim ⁹⁵729, wherein the proton pump inhibitor is lansoprazole.

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738. (New) The composition as recited in Claim ¹⁰³737, wherein the lansoprazole is present in an amount of about 15 mg.

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¹⁰⁵ 739. (New) The composition as recited in Claim 737, wherein the lansoprazole is present in an amount of about 30 mg.

¹⁰⁶ 740. (New) The composition as recited in Claim 737, wherein the lansoprazole is present in an amount of about 45 mg.

¹⁰⁷ 741. (New) The composition as recited in Claim 737, wherein the lansoprazole is present in an amount of about 60 mg.

¹⁰⁸ 742. (New) The composition as recited in Claim 737, wherein the lansoprazole is present in an amount of about 90 mg.

¹⁰⁹ 743. (New) The composition as recited in Claim 737, wherein the lansoprazole is present in an amount of about 100 mg.

¹¹⁰ 744. (New) The composition as recited in Claim 23, wherein the proton pump inhibitor is micronized.

¹¹¹ 745. (New) The composition as recited in Claim 34, wherein the flavoring agent comprises aspartame, chocolate, root beer, peppermint, spearmint, berry, peach, or watermelon.

¹¹² 746. (New) The composition as recited in Claim 23, wherein the composition is provided as a separate component of a kit.

747. (New) A method for treating an acid-related gastrointestinal disorder in a subject in need thereof, comprising: enterally administering to the subject the solid pharmaceutical composition as recited in Claim 23.

748. (New) The method as recited in Claim 747, wherein the disorder is selected from the group consisting of duodenal ulcer disease, gastric ulcer disease, gastroesophageal reflux disease (GERD), erosive esophagitis, poorly responsive symptomatic gastroesophageal reflux disease, pathological hypersecretory disease, Zollinger Ellison Syndrome, and dyspepsia.

749. (New) The method as recited in Claim 747, further comprising administering to the subject an additional buffering agent.

61 750. (New) The method as recited in Claim 749, wherein the additional buffering agent is administered to the subject in a form selected from the group consisting of solution, suspension, tablet, powder, suspension tablet, chewable tablet, capsule, effervescent powder, effervescent tablet, pellets, and granules.

751. (New) The method as recited in Claim 749, wherein the additional buffering agent is administered to the subject in an amount from about 2 mEq to about 70 mEq.

752. (New) The method as recited in Claim 749, wherein the composition has less than about 20 times the amount of the additional buffering agent as compared to the proton pump inhibitor on a weight to weight basis.

753. (New) A liquid pharmaceutical composition, comprising: the pharmaceutical composition as recited in Claim 23 and an aqueous medium.

754. (New) The composition as recited in Claim 753, wherein the aqueous medium comprises a buffering agent.

755. (New) The composition as recited in Claim 753, wherein the buffering agent comprises a bicarbonate salt of a Group IA metal.

B₁ 756. (New) The composition as recited in Claim 753, wherein the buffering agent is in an amount from about 2 mEq to about 70 mEq.

757. (New) The method as recited in Claim 95, wherein the proton pump inhibitor is in an amount from about 10 mg to about 100 mg.

758. (New) The method as recited in Claim 95, wherein the proton pump inhibitor is micronized.

759. (New) The method as recited in Claim 112, wherein the flavoring agent comprises aspartame, chocolate, root beer, peppermint, spearmint, berry, peach, or watermelon.

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760. (New) The method as recited in Claim 95, wherein the disorder is selected from the group consisting of duodenal ulcer disease, gastric ulcer disease, gastroesophageal reflux disease (GERD), erosive esophagitis, poorly responsive symptomatic gastroesophageal reflux disease, pathological hypersecretory disease, Zollinger Ellison Syndrome, and dyspepsia.

761. (New) The method as recited in Claim 95, further comprising administering to the subject an additional buffering agent.

762. (New) The method as recited in Claim 761, wherein the additional buffering agent is administered to the subject in a form selected from the group consisting of solution, suspension, tablet, powder, suspension tablet, chewable tablet, capsule, effervescent powder, effervescent tablet, pellets, and granules.

763. (New) The method as recited in Claim 761, wherein the additional buffering agent is administered to the subject in an amount from about 2 mEq to about 70 mEq.

764. (New) The method as recited in Claim 761, wherein the composition has less than about 20 times the amount of the additional buffering agent as compared to the proton pump inhibitor on a weight to weight basis.

765. (New) The method as recited in Claim 95, wherein the composition is administered once or twice a day.

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766. (New) The composition as recited in Claim 141, wherein the gastric secretions comprise gastric secretions of a human subject.

767. (New) The composition as recited in Claim 141, wherein the proton pump inhibitor is in an amount from about 10 mg to about 100 mg.

768. (New) The composition as recited in Claim 766, wherein the proton pump inhibitor is omeprazole.

769. (New) The composition as recited in Claim 768, wherein the omeprazole is present in an amount of about 10 mg.

770. (New) The composition as recited in Claim 768, wherein the omeprazole is present in an amount of about 20 mg.

771. (New) The composition as recited in Claim 768, wherein the omeprazole is present in an amount of about 40 mg.

772. (New) The composition as recited in Claim 768, wherein the omeprazole is present in an amount of about 60 mg.

773. (New) The composition as recited in Claim 768, wherein the omeprazole is present in an amount of about 80 mg.

774. (New) The composition as recited in Claim 768, wherein the omeprazole is present in an amount of about 100 mg.

775. (New) The composition as recited in Claim 766, wherein the proton pump inhibitor is lansoprazole.

776. (New) The composition as recited in Claim 775, wherein the lansoprazole is present in an amount of about 15 mg.

777. (New) The composition as recited in Claim 775, wherein the lansoprazole is present in an amount of about 30 mg.

778. (New) The composition as recited in Claim 775, wherein the lansoprazole is present in an amount of about 45 mg.

779. (New) The composition as recited in Claim 775, wherein the lansoprazole is present in an amount of about 60 mg.

780. (New) The composition as recited in Claim 775, wherein the lansoprazole is present in an amount of about 90 mg.

781. (New) The composition as recited in Claim 775, wherein the lansoprazole is present in an amount of about 100 mg.

782. (New) The composition as recited in Claim 141, wherein the proton pump inhibitor is micronized.

783. (New) The composition as recited in Claim 152, wherein the flavoring agent comprises aspartame, chocolate, root beer, peppermint, spearmint, berry, peach, or watermelon.

784. (New) The composition as recited in Claim 141, wherein the composition is provided as a separate component of a kit.

785. (New) A method for treating an acid-related gastrointestinal disorder in a subject in need thereof, comprising: enterally administering to the subject the solid pharmaceutical composition as recited in Claim 141.

786. (New) The method as recited in Claim 785, wherein the disorder is selected from the group consisting of duodenal ulcer disease, gastric ulcer disease, gastroesophageal reflux disease (GERD), erosive esophagitis, poorly responsive symptomatic gastroesophageal reflux disease, pathological hypersecretory disease, Zollinger Ellison Syndrome, and dyspepsia.

787. (New) The method as recited in Claim 785, further comprising administering to the subject an additional buffering agent.

788. (New) The method as recited in Claim 787, wherein the additional buffering agent is administered to the subject in a form selected from the group consisting of solution, suspension, tablet, powder, suspension tablet, chewable tablet, capsule, effervescent powder, effervescent tablet, pellets, and granules.

789. (New) The method as recited in Claim 787, wherein the additional buffering agent is administered to the subject in an amount from about 2 mEq to about 70 mEq.

790. (New) The method as recited in Claim 787, wherein the composition has less than about 20 times the amount of the additional buffering agent as compared to the proton pump inhibitor on a weight to weight basis.

791. (New) The method as recited in Claim 785, wherein the composition is administered once or twice a day.

792. (New) A liquid pharmaceutical composition, comprising: the pharmaceutical composition as recited in Claim 141 and an aqueous medium.

793. (New) The composition as recited in Claim 792, wherein the aqueous medium comprises a buffering agent.

794. (New) The composition as recited in Claim 793, wherein the buffering agent comprises a bicarbonate salt of a Group IA metal.

795. (New) The composition as recited in Claim 793, wherein the buffering agent is in an amount from about 2 mEq to about 70 mEq.

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796. (New) The composition as recited in Claim 181, wherein the proton pump inhibitor is in an amount from about 10 mg to about 100 mg.

797. (New) The composition as recited in Claim 796, wherein the proton pump inhibitor is omeprazole.

798. (New) The composition as recited in Claim 797, wherein the omeprazole is present in an amount of about 10 mg.

799. (New) The composition as recited in Claim 797, wherein the omeprazole is present in an amount of about 20 mg.

800. (New) The composition as recited in Claim 797, wherein the omeprazole is present in an amount of about 40 mg.

801. (New) The composition as recited in Claim 797, wherein the omeprazole is present in an amount of about 60 mg.

802. (New) The composition as recited in Claim 797, wherein the omeprazole is present in an amount of about 80 mg.

803. (New) The composition as recited in Claim 797, wherein the omeprazole is present in an amount of about 100 mg.

804. (New) The composition as recited in Claim 796, wherein the proton pump inhibitor is lansoprazole.

805. (New) The composition as recited in Claim 804, wherein the lansoprazole is present in an amount of about 15 mg.

806. (New) The composition as recited in Claim 804, wherein the lansoprazole is present in an amount of about 30 mg.

807. (New) The composition as recited in Claim 804, wherein the lansoprazole is present in an amount of about 45 mg.

808. (New) The composition as recited in Claim 804, wherein the lansoprazole is present in an amount of about 60 mg.

809. (New) The composition as recited in Claim 804, wherein the lansoprazole is present in an amount of about 90 mg.

810. (New) The composition as recited in Claim 804, wherein the lansoprazole is present in an amount of about 100 mg.

811. (New) The composition as recited in Claim 181, wherein the proton pump inhibitor is micronized.

812. (New) The composition as recited in Claim 181, further comprising a flavoring agent.

813. (New) The composition as recited in Claim 812, wherein the flavoring agent comprises aspartame, chocolate, root beer, peppermint, spearmint, berry, peach, or watermelon.

814. (New) The composition as recited in Claim 181, wherein the proton pump inhibitor is in a form selected from the group consisting of tablet, powder, suspension tablet, chewable tablet, capsule, effervescent powder, effervescent tablet, pellets, and granules.

815. (New) The composition as recited in Claim 181, wherein the composition is provided as a separate component of a kit.

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816. (New) The method as recited in Claim 203, wherein the condition is selected from the group consisting of duodenal ulcer disease, gastric ulcer disease, gastroesophageal reflux disease (GERD), erosive esophagitis, poorly responsive symptomatic gastroesophageal reflux disease, pathological hypersecretory disease, Zollinger Ellison Syndrome, and dyspepsia.

817. (New) The method as recited in Claim 203, wherein the proton pump inhibitor is in an amount from about 10 mg to about 100 mg.

818. (New) The method as recited in Claim 203, wherein the proton pump inhibitor is micronized.

819. (New) The method as recited in Claim 203, wherein the proton pump inhibitor is in a form selected from the group consisting of tablet, powder, suspension tablet, chewable tablet, capsule, effervescent powder, effervescent tablet, pellets, and granules.

820. (New) The method as recited in Claim 203, wherein the dosage form further comprises a flavoring agent.

821. (New) The method as recited in Claim 820, wherein the flavoring agent comprises aspartame, chocolate, root beer, peppermint, spearmint, berry, peach, or watermelon.

822. (New) The method as recited in Claim 203, further comprising administering to the subject an additional buffering agent.

823. (New) The method as recited in Claim 822, wherein the additional buffering agent is administered to the subject in a form selected from the group consisting of solution, suspension, tablet, powder, suspension tablet, chewable tablet, capsule, effervescent powder, effervescent tablet, pellets, and granules.

824. (New) The method as recited in Claim 822, wherein the additional buffering agent is administered to the subject in an amount from about 2 mEq to about 70 mEq.

825. (New) The method as recited in Claim 822, wherein the composition has less than about 20 times the amount of the additional buffering agent as compared to the proton pump inhibitor on a weight to weight basis.

826. (New) The method as recited in Claim 203, wherein the composition is administered once or twice a day.

827. (New) A liquid pharmaceutical composition, comprising: the pharmaceutical composition as recited in Claim 181 and an aqueous medium.

828. (New) The composition as recited in Claim 827, wherein the aqueous medium comprises a buffering agent.

829. (New) The composition as recited in Claim 828, wherein the buffering agent comprises a bicarbonate salt of a Group IA metal.

830. (New) The composition as recited in Claim 828, wherein the buffering agent is in an amount from about 2 mEq to about 70 mEq.

831. (New) The composition as recited in Claim 827, wherein the composition is provided as a separate component of a kit.

832. (New) A method for treating esophageal disease in a subject, comprising: orally administering to the subject a single dose of a liquid pharmaceutical composition consisting essentially of a proton pump inhibitor and a buffering agent wherein the single dose of the buffering agent is sufficient to treat the disease.

833. (New) The method as recited in Claim 832, wherein the buffering agent is a bicarbonate salt of a Group IA metal.

834. (New) The method as recited in Claim 833, wherein the buffering agent is sodium bicarbonate.

835. (New) The method as recited in Claim 832, wherein the buffering agent is a calcium salt.

836. (New) The method as recited in Claim 832, wherein the buffering agent is in an amount from about 10 mEq to about 70 mEq.

837. (New) The method as recited in Claim 832, wherein the buffering agent is in an amount from about 20 mEq to about 40 mEq.

838. (New) The method as recited in Claim 832, wherein the proton pump inhibitor is selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole, pantoprazole, pariprazole, and lémiprazole.

839. (New) The method as recited in Claim 832, wherein the proton pump inhibitor is micronized.

840. (New) The method as recited in Claim 832, wherein the composition further comprising a flavoring agent.

841. (New) The method as recited in Claim 840, wherein the flavoring agent comprises aspartame, chocolate, root beer, peppermint, spearmint, berry, peach, or watermelon.

842. (New) The method as recited in Claim 832, wherein the proton pump inhibitor is omeprazole in a dose from about 2mg to about 100mg.

843. (New) The method as recited in Claim 842, wherein the omeprazole is about 10mg per dose.

844. (New) The method as recited in Claim 842, wherein the omeprazole is about 20mg per dose.

B. 845. (New) The method as recited in Claim 842, wherein the omeprazole is about 40mg per dose.

846. (New) The method as recited in Claim 842, wherein the omeprazole is about 80mg per dose.

847. (New) The method as recited in Claim 832, wherein the proton pump inhibitor is lansoprazole in a dose from about 2mg to 100mg.

848. (New) The method as recited in Claim 847, wherein the lansoprazole is about 15mg per dose.

849. (New) The method as recited in Claim 847, wherein the lansoprazole is about 30mg per dose.

850. (New) The method as recited in Claim 847, wherein the lansoprazole is about 60mg per dose.

851. The method as recited in Claim 847, wherein the lansoprazole is about 90mg per dose.

852. (New) The method as recited in Claim 832, wherein the solution is administered to the subject in a single dose of about 2 ml to about 100 ml.

853. (New) The method as recited in Claim 832, wherein the solution is administered to the subject in a single dose of about 8 ml to about 60 ml.

854. (New) The method as recited in Claim 832, wherein the solution is administered to the subject in a single dose of about 10 ml to about 20 ml.

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855. (New) The method as recited in Claim 832, wherein the esophageal disease is selected from the group consisting of duodenal ulcer disease, gastric ulcer disease, gastroesophageal reflux disease (GERD), erosive esophagitis, poorly responsive symptomatic gastroesophageal reflux disease, pathological hypersecretory disease, Zollinger Ellison Syndrome, and dyspepsia.

856. (New) The method as recited as recited in Claim 832, wherein the proton pump inhibitor comprises a substantially pure enantiomer, racemic mixture, derivative, free base, or salt thereof.

857. (New) The method as recited in Claim 832, wherein the buffering agent is about 0.5mEq to about 70mEq per dose.

858. (New) The method as recited in Claim 832, wherein the buffering agent is about 7.5mEq to about 30mEq per dose.

859. (New) The method as recited in Claim 832, wherein the buffering agent is about 10mEq to about 20mEq per dose.

860. (New) The method as recited in Claim 832 wherein the composition is about 20mg to about 40mg omeprazole and about 10mEq to 40mEq buffering agent.

861. (New) The method as recited in Claim 832, wherein the composition is about 15mg to about 30mg lansoprazole and about 10mEq to 40mEq buffering agent.

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III. Substitution of Claims

Substitute pending claims 23, 26-35, 38-40, 42, 43, 52, 53, 65-76, 81-86, 91-95, 111-113, 122, 123, 130, 131, 141, 144, 170, 171, 181, 184, 198, 203, 219, 229, 230, and 233, with the corresponding amended claims, as shown below:

Sub D1
23. (Amended) A solid pharmaceutical composition in a dosage form that is not enteric-coated, consisting essentially of:

(a) a proton pump inhibitor (PPI) selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole, pantoprazole, pariprazole, and leminoprazole; and

(b) at least one buffering agent in an amount sufficient to prevent or inhibit acid degradation of the proton pump inhibitor (PPI) by gastric acid in a subject so as to achieve bioavailability of the proton pump inhibitor (PPI) in the subject after enteral administration of the dosage form;

B2 wherein the dosage form is selected from the group consisting of a suspension tablet, a chewable tablet, an effervescent powder, and an effervescent tablet.

112 # 2

26. (Amended) The composition as recited in Claim 23, wherein the proton pump inhibitor comprises a substantially pure enantiomer, racemic mixture, derivative, free base, or salt thereof.

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27.² (Amended) The composition as recited in Claim 23, wherein the proton pump inhibitor is omeprazole.

28.³ (Amended) The composition as recited in Claim 23, wherein the proton pump inhibitor is lansoprazole.

29.⁴ (Amended) The composition as recited in Claim 23, wherein the proton pump inhibitor is rabeprazole.

30.⁵ (Amended) The composition as recited in Claim 23,¹ wherein the proton pump inhibitor is esomeprazole.

31.⁶ (Amended) The composition as recited in Claim 23,¹ wherein the proton pump inhibitor is pantoprazole.

32.⁷ (Amended) The composition as recited in Claim 23,¹ wherein the proton pump inhibitor is pariprazole.

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cont
33.⁸ (Amended) The composition as recited in Claim 23,¹ wherein the proton pump inhibitor is leminoprazole.

34.⁹ (Amended) The composition as recited in Claim 23,¹ further comprising at least one flavoring agent.

35.¹⁰ (Amended) The composition as recited in Claim 23,¹ further comprising an anti-foaming agent.

38.¹¹ (Amended) The composition as recited in Claim 23,¹ wherein the dosage form is a suspension tablet.

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39.¹² (Amended) The composition as recited in Claim 23,¹ wherein the dosage form is a chewable tablet.

40.¹³ (Amended) The composition as recited in Claim 39,¹² further comprising aspartame.

42.¹⁴ (Amended) The composition as recited in Claim 23,¹ wherein the dosage form is an effervescent powder.

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43.¹⁵ (Amended) The composition as recited in Claim 23,¹ wherein the dosage form is an effervescent tablet.

52.¹⁶ (Amended) The composition as recited in Claim 23, wherein the buffering agent is at least about 1680 mg sodium bicarbonate.

B₆ 53.¹⁷ (Amended) The composition as recited in Claim 23, wherein the buffering agent is about 1000 mg to about 1680 mg sodium bicarbonate.

65. (Amended) A method of producing a liquid pharmaceutical composition,
comprising: combining the composition recited in Claim 38 with an aqueous medium.

B7 66. (Amended) The method of Claim 65, wherein the aqueous medium comprises
sodium bicarbonate solution.

67. (Amended) The method of Claim 65, wherein the aqueous medium comprises
gastric secretions.

68. (Amended) The method of Claim 65, wherein the aqueous medium comprises
water.

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69. (Amended) A method of producing a liquid pharmaceutical composition,
comprising: combining the composition recited in Claim 39¹² with an aqueous medium.

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cont
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70. (Amended) The method of Claim ~~69~~^B, wherein the aqueous medium comprises
sodium bicarbonate solution.

NE 71. (Amended) The method of Claim ~~69~~^B, wherein the aqueous medium comprises
gastric secretions.

NE 72. (Amended) The method of Claim ~~69~~^B, wherein the aqueous medium comprises
water.

Amended
NE
73. (Amended) A method of producing a liquid pharmaceutical composition, comprising: combining the composition recited in Claim 40 with an aqueous medium.

74. (Amended) The method of Claim 73, wherein the aqueous medium comprises sodium bicarbonate solution.

75. (Amended) The method of Claim 73, wherein the aqueous medium comprises gastric secretions.

76. (Amended) The method of Claim 73, wherein the aqueous medium comprises water.

20⁸¹. (Amended) A method of producing a liquid pharmaceutical composition, comprising: combining the composition recited in Claim ~~42~~¹⁴ with an aqueous medium.

82. (Amended) The method of Claim 81, wherein the aqueous medium comprises sodium bicarbonate solution.

83. (Amended) The method of Claim 81, wherein the aqueous medium comprises water.

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84. (Amended) A method of producing a liquid pharmaceutical composition,
²¹ comprising: combining the composition recited in Claim ¹⁵43 with an aqueous medium.

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85. (Amended) The method of Claim 84, wherein the aqueous medium comprises sodium bicarbonate solution.

86. (Amended) The method of Claim 84, wherein the aqueous medium comprises water.

91. (Amended) A method of producing a liquid pharmaceutical composition, comprising: combining the composition recited in Claim 45 with an aqueous medium.

92. (Amended) The method of Claim 91, wherein the aqueous medium comprises sodium bicarbonate solution.

B₉ 93. (Amended) The method of Claim 91, wherein the aqueous medium comprises gastric secretions.

94. (Amended) The method of Claim 91, wherein the aqueous medium comprises water.

Bh 32
95. (Amended) A method of treating an acid-related gastrointestinal disorder in a subject in need thereof, comprising: enterally administering to the subject a solid pharmaceutical composition in a dosage form that is not enteric-coated, wherein the composition consists essentially of:

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Cont
(a) a proton pump inhibitor (PPI) selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole, pantoprazole, pariprazole, and leminoprazole; and

(b) at least one buffering agent in an amount sufficient to prevent or inhibit acid degradation of the proton pump inhibitor (PPI) by gastric acid in the subject so as to achieve bioavailability of the proton pump inhibitor (PPI) in the subject after enteral administration of the dosage form.

111. (Amended) The method as recited in Claim 95, wherein the proton pump inhibitor comprises a substantially pure enantiomer, racemic mixture, derivative, free base, or salt thereof.

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112. (Amended) The method as recited in Claim 95, wherein the composition further comprises a flavoring agent.

113. (Amended) The method as recited in Claim 95, wherein the composition further comprises an anti-foaming agent.

122. (Amended) The method as recited in Claim 95, wherein the composition is a plurality of pellets.

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123. (Amended) The method as recited in Claim 95, wherein the composition is a plurality of granules.

B12
130. (Amended) The method as recited in Claim 95, wherein the buffering agent is at least about 1680 mg sodium bicarbonate.

B12 Cont
131. (Amended) The method as recited in Claim 95, wherein the buffering agent is about 1000 mg to about 1680 mg sodium bicarbonate. *G*

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141. (Amended) A composition, consisting essentially of:

(a) a therapeutically effective amount of a non-enteric coated proton pump inhibitor (PPI) selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole, pantoprazole, pariprazole, and leminoprazole;

(b) gastric secretions; and

(c) at least one buffering agent in an amount sufficient to prevent or inhibit acid degradation of the proton pump inhibitor (PPI) by the gastric secretions so as to achieve bioavailability of the proton pump inhibitor (PPI) in a subject;

wherein the proton pump inhibitor (PPI) and the buffering agent comprise a solid dosage form, which is capable of disintegration and dissolution in the gastric secretions and is not enteric-coated.

144. (Amended) The composition as recited in Claim 141, wherein the proton pump inhibitor comprises a substantially pure enantiomer, racemic mixture, derivative, free base, or salt thereof.

170. (Amended) The composition as recited in Claim 141, wherein the buffering agent is at least about 1680 mg sodium bicarbonate.

171. (Amended) The composition as recited in Claim 141, wherein the buffering agent is about 1000 mg to about 1680 mg sodium bicarbonate.

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181. (Amended) A solid pharmaceutical composition in a dosage form that is not enteric-coated, comprising:

(a) a first part comprising a non-enteric coated proton pump inhibitor (PPI) selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole, pantoprazole, pariprazole, and leminoprazole; and

B14 (b) a second part surrounding the first part, the second part comprising at least one buffering agent in an amount sufficient to prevent or inhibit acid degradation of the proton pump inhibitor (PPI) by gastric acid in a subject so as to achieve bioavailability of the proton pump inhibitor (PPI) in the subject after enteral administration of the dosage form.

B17 184. (Amended) The dosage form as recited in Claim 181, wherein the proton pump inhibitor comprises a substantially pure enantiomer, racemic mixture, derivative, free base, or salt thereof.

B18 198. (Amended) The dosage form as recited in Claim 181, wherein the buffering agent is at least about 1680 mg sodium bicarbonate.

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203. (Amended) A method of treating an acid-related gastrointestinal condition in a subject in need thereof, comprising: enterally administering to the subject the solid pharmaceutical dosage form as recited in Claim 181.

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219. (Amended) The method as recited in Claim 203, wherein the proton pump inhibitor comprises a substantially pure enantiomer, racemic mixture, derivative, free base, or salt thereof.

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229. (Amended) The method as recited in Claim 203, wherein the buffering agent is at least about 1680 mg sodium bicarbonate.

D
230. (Amended) The method as recited in Claim 203, wherein the buffering agent is about 1000 mg to about 1680 mg sodium bicarbonate.

B²²
233. (Amended) The method as recited in Claim 203 wherein the buffering agent comprises a combination of sodium bicarbonate and calcium carbonate.

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